Naval Aviation Costs

Targeting Operations and Support

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When assessing the strength of today's Department of Defense (DoD) weapon systems, affordability is just as important as performance. Acquisition leadership is not focused only on determining whether a weapon system is affordable in the development and production phases but, more important, in sustainment, where 70 percent of programs' life-cycle costs are borne. History has shown that operations and support (O&S) costs

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are more likely to exceed projections than to come in under their budgeted level. Controlling and reducing weapon system sustainment has proven difficult and is quickly becoming one of Naval Aviation's top priorities.

Facing an estimated $3.5 billion O&S funding shortfall between Fiscal Year (FY) 2013 and FY 2019, Naval Aviation must renew its emphasis on "cost-wise readiness" and develop a demanding "should cost" perspective across the Naval Aviation Enterprise (NAE). NAVAIR's Cost Analysis Team estimates it will take a 15 percent reduction in Naval Aviation O&S costs to close this gap. An effort of this magnitude must include a dynamic O&S cost reduction strategy. This article spotlights the NAE's renewed focus on reducing O&S cost through the application of proven best practices, innovative new processes and the introduction of an advanced analytical tool set across the enterprise.

The Naval Aviation Enterprise (The Framework)

The Naval Aviation Enterprise is a partnership of key Naval Aviation stakeholders from the Navy and the Marine Corps. The Enterprise framework brings together the many parts that make up Naval Aviation in order to foster better decision making that benefits Naval Aviation as a whole. By partner-
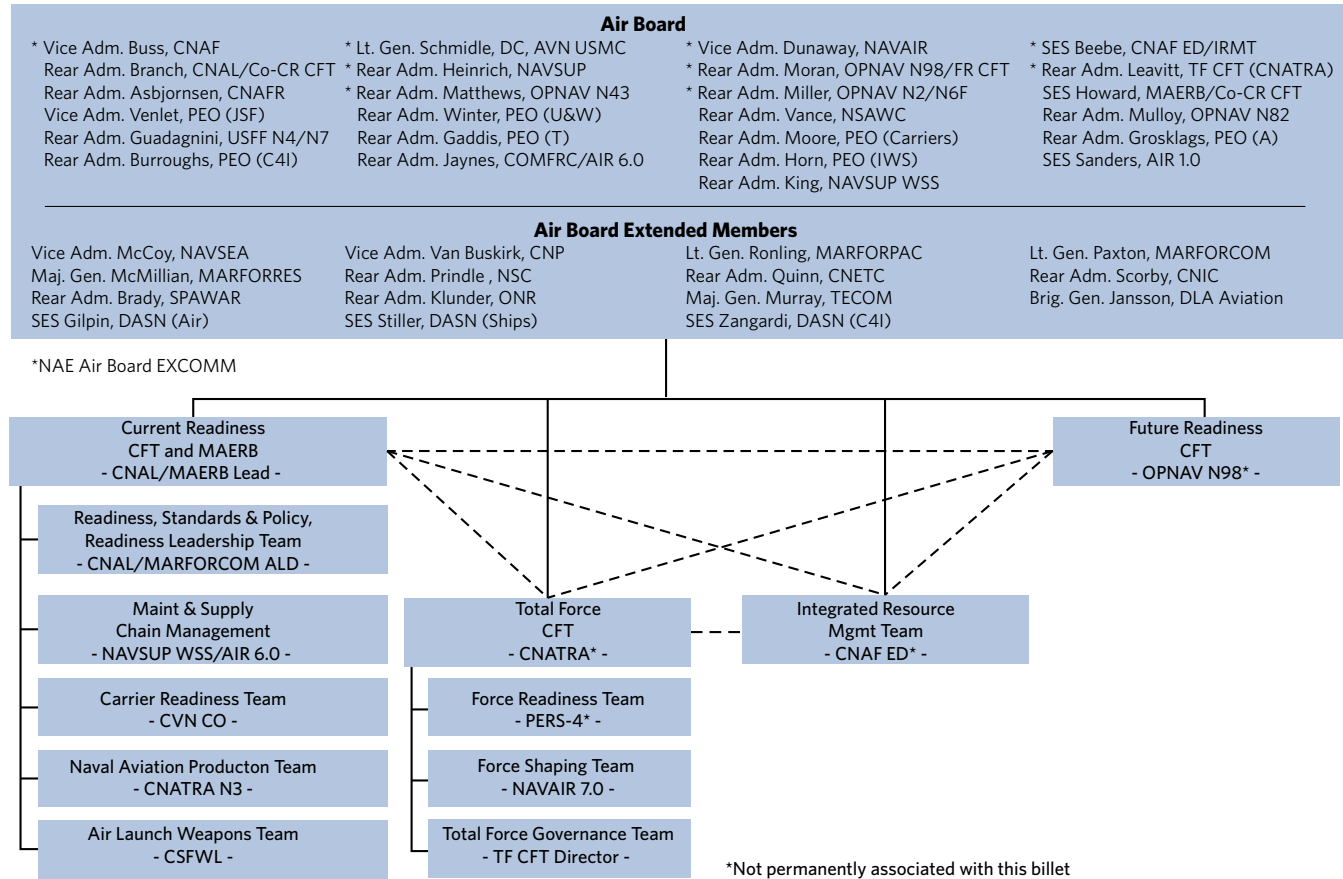
ing in a collaborative manner, Naval Aviation is better able to produce warfighting readiness in the most cost-effective way. This enterprise approach facilitates cooperation with other commands, the provider domains and other organizations that impact Naval Aviation in order to improve the alignment of resources to achieve desired levels of readiness. The goal is an integrated approach to maximize readiness and efficiencies.

Through this alignment of the myriad organizations that impact Naval Aviation, the NAE is able to perform its stated mission: advance and sustain Naval Aviation warfighting capabilities at an affordable cost ... today and in the future.

Naval Aviation Enterprise approach is based on the following principles:

- **Consistent cross-functional process thinking**. Working horizontally across organizations, an enterprise can achieve desired results more effectively with less time and fewer resources.
- **Process discipline**. Dedicated, committed and coordinated efforts from stakeholder organizations will drive positive and predictable results.

Figure 1. Today's NAE

Air Board

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Rear Adm. Gaddis, PEO (T)
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Current Readiness CFT and MAERB
- CNAL/MAERB Lead -

Readiness, Standards & Policy, Readiness Leadership Team
- CNAL/MARFORCOM ALD -

Maint & Supply Chain Management
- NAVSUP WSS/AIR 6.0 -

Carrier Readiness Team
- CVN CO -

Naval Aviation Producton Team
- CNATRA N3 -

Air Launch Weapons Team
- CSFWL -

Total Force CFT
- CNATRA* -

Force Readiness Team
- PERS-4* -

Force Shaping Team
- NAVAIR 7.0 -

Total Force Governance Team
- TF CFT Director -

Integrated Resource Mgmt Team
- CNAF ED* -

Future Readiness CFT
- OPNAV N98* -

*Not permanently associated with this billet

- **Integrated, consistent and hierarchical metrics**. Relevant measurements must be linked throughout the processes and must build on each other.
- **Full transparency of data, information and activities**. Each piece of the enterprise must see the process ahead of it and the process behind it.
- **Accountability for actions and results**. People within an enterprise hold themselves accountable for actions taken and not taken.
- **Integrated governance structure**. Effective governance is adaptable to opportunities, inclusive and well-suited to work across boundaries and seams to sustain readiness.
- **Total ownership cost perspective**. A strategic financial management view provides the ability to understand and manage affordability, while balancing risk and meeting operational requirements.

More than 190,000 sailors, Marines, civilians and contractors contribute to the enterprise approach within Naval Aviation. They work in different organizations that must all cooperate to ensure cost-effective readiness. This enterprise behavior model has been successful in identifying and understanding cost and readiness degraders, and removing barriers to efficiently deliver warfighting readiness to the fleet.

The NAE Cost Initiative Key Stakeholders (The Stakeholders)

The NAE's Air Board is the governing body and is led by three 3-star Flag/General officers (Commander, Naval Air Forces, Vice Adm. D.H. Buss, U.S. Navy; Marine Deputy Commandant, Aviation, Lt. Gen. R.E. Schmidle, U.S. Marine Corps; and Commander, Naval Air Systems Command Vice Adm. D.A. Dunaway). To optimize readiness, each element composing that readiness—"people, stuff and money"—must be managed. Cross-functional teams are functionally focused to manage these elements properly. These cross-functional teams are composed of members from different stakeholder organizations and are critical to the success of the NAE. NAE cross-functional teams and focus areas include:

- **Current Readiness**: Focused on meeting current and future operational requirements at an optimal O&S cost.
- **Future Readiness**: Champions future readiness and cost issues that optimize Total Ownership Cost and future sustainability of new and legacy systems.
- **Total Force**: Focused on the NAE's people.
- **Integrated Resource Management Team**: Focused on providing integrated solutions and strategies across the NAE.

An important foundational process of the NAE is the Type/Model/Series (T/M/S) briefing cycle. During this process, platform-specific program reviews are conducted, beginning with an O-6 level weapons system review with the fleet and Program Management leadership and culminating with a concise issue-oriented brief to NAE leadership. This brief provides the opportunity for Flag/General officers and Senior Executive Service leaders to review and discuss readiness and

> **This enterprise behavior model has been successful in identifying and understanding cost and readiness degraders, and removing barriers to efficiently deliver warfighting readiness to the fleet.**

cost degraders affecting the success of individual weapon systems, and also address systemic issues across the enterprise. These platform "deep-dive" reviews are critical in providing NAE leadership:

- Increased awareness and understanding of those factors causing readiness gaps and driving cost
- Awareness and status of engagement by provider organizations to mitigate gap drivers that negatively impact warfighter readiness
- Development of actionable plans to address readiness and cost barriers

Rear Adm. Timothy Matthews, Deputy Chief of Naval Operations for Fleet Readiness, said: "It's important to remind ourselves that our responsibility is to the warfighter and the taxpayer, and how well we support them is measured by our ability to advance and sustain NAE warfighting capabilities that meet current and future operational requirements at the optimal O&S sustainment cost. This is especially important during these austere financial times."

The NAE Strategic Guidance for 2013-2014 (The Goal)

The NAE Air Board recently released NAE Strategic Guidance designed to address the O&S shortfall. Highlights include:

- Reduce the overall Flight Hour Program's Cost per Flight Hour (CPFH) by 10 percent, with no net increase in military manpower. The following initiatives, although not all-inclusive, represent a roadmap to assist in reducing CPFH:
  — Apply the O&S Cost Reduction Initiative across all T/M/S platforms.
  — Implement the use of the Integrated Logistics Support Management System (ILSMS) data analysis tool.

- Expand the use of Commander, Fleet Readiness Center (COMFRC) Aviation Rapid Action Teams (ARATs).
- Expand the use of COMFRC Colocated Maintenance and Maintenance Optimization initiatives.
- Mandate that T/M/S teams address future O&S costs in their new acquisition programs and renew their focus on addressing readiness degraders and cost-reduction initiatives in their "deep-dive" review briefings.
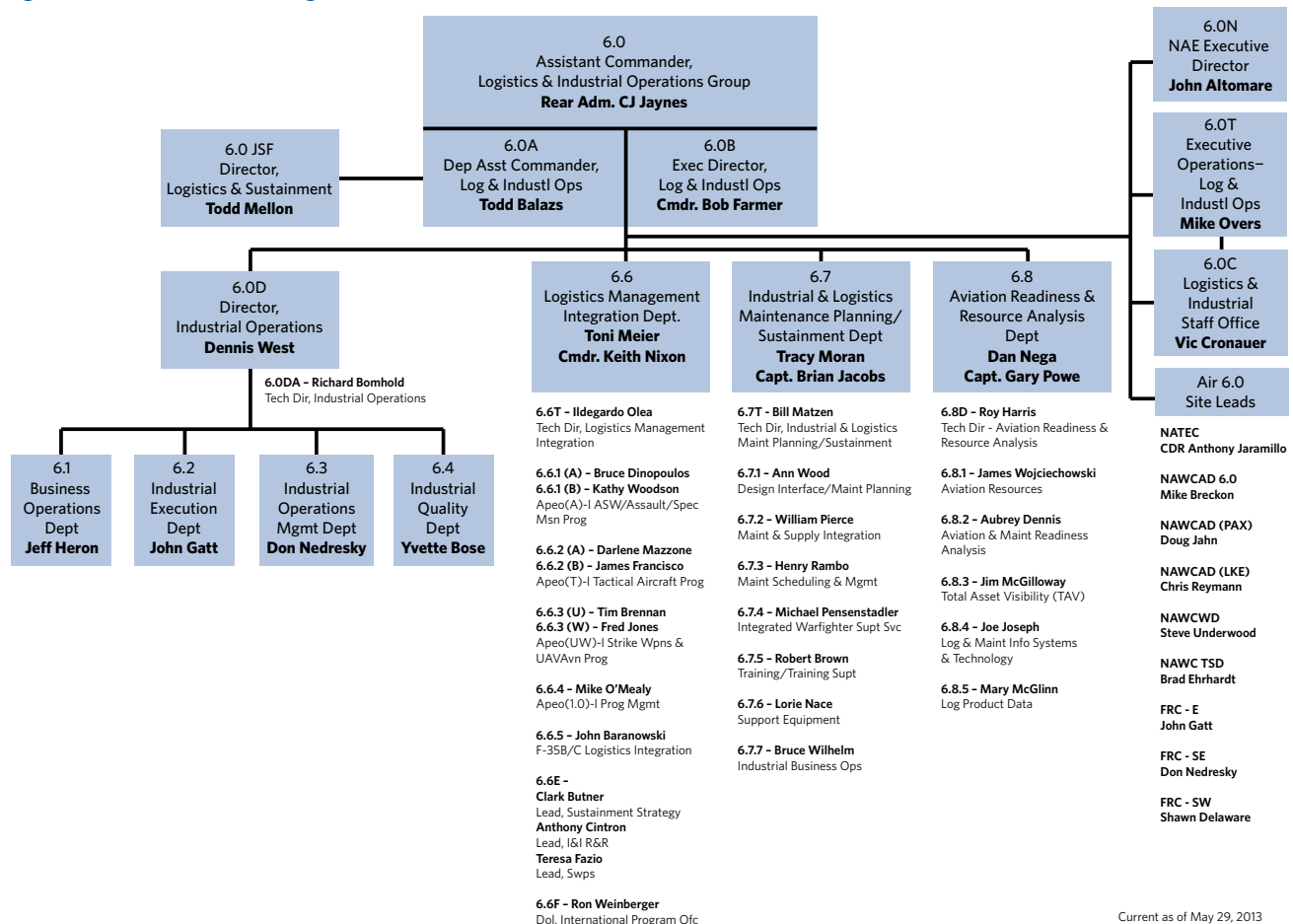
NAVAIR Commander Guidance (The Direction)

As the lead provider organization within the NAE, NAVAIR has a significant role in determining success in meeting the NAE's Strategic Guidance. Its organizational structure and reporting relationships with the Assistant Secretary of the Navy (Research, Development and Acquisition), the Program Executive Offices, and individual Program Managers AIR (PMAs) places NAVAIR in a unique position to affect cost efficiencies for T/M/S teams. In support of the Chief of Naval Operations' guidance to ensure that our warfighters are ready to fight and win while building capability for the future, VADM Dunaway has issued his NAVAIR Commander's Intent, which includes three main focus areas:

- Increase speed to the fleet.
- Consistently deliver integrated and interoperable warfighting capabilities.
- Improve affordability by reducing operating and sustainment costs for fielded systems and implementing life-cycle cost reduction initiatives as part of new systems development.

NAVAIR's commitment to improve affordability by reducing O&S cost in fielded systems and to introduce life-cycle cost reduction initiatives in new systems development has resulted in the introduction of key cost-cutting strategies that are being implemented across the enterprise.

Rear Adm. CJ Jaynes, NAVAIR Assistant Commander for Logistics and Industrial Operations (NAVAIR 6.0) and the Commander, Fleet Readiness Centers (COMFRC), is spearheading NAVAIR's initiative to improve affordability. Jaynes is uniquely qualified for this task, being a career logistician with more than 20 years of sustainment expertise, coupled with two tours as a Major Program Manager. The initiatives that her COMFRC, cost reduction and logistics integration teams have developed are the key enablers for the NAE's Strategic

Figure 2. NAVAIR Organization Structure

6.0 — Assistant Commander, Logistics & Industrial Operations Group — **Rear Adm. CJ Jaynes**

6.0N — NAE Executive Director — **John Altomare**

6.0 JSF — Director, Logistics & Sustainment — **Todd Mellon**

6.0A — Dep Asst Commander, Log & Industl Ops — **Todd Balazs**

6.0B — Exec Director, Log & Industl Ops — **Cmdr. Bob Farmer**

6.0T — Executive Operations– Log & Industl Ops — **Mike Overs**

6.0C — Logistics & Industrial Staff Office — **Vic Cronauer**

Air 6.0 — Site Leads

6.0D — Director, Industrial Operations — **Dennis West**

6.0DA – Richard Bomhold — Tech Dir, Industrial Operations

6.6 — Logistics Management Integration Dept. — **Toni Meier / Cmdr. Keith Nixon**

6.7 — Industrial & Logistics Maintenance Planning/ Sustainment Dept — **Tracy Moran / Capt. Brian Jacobs**

6.8 — Aviation Readiness & Resource Analysis Dept — **Dan Nega / Capt. Gary Powe**

6.1 — Business Operations Dept — **Jeff Heron**

6.2 — Industrial Execution Dept — **John Gatt**

6.3 — Industrial Operations Mgmt Dept — **Don Nedresky**

6.4 — Industrial Quality Dept — **Yvette Bose**

6.6T – Ildegardo Olea — Tech Dir, Logistics Management Integration

6.6.1 (A) – Bruce Dinopoulos
6.6.1 (B) – Kathy Woodson — Apeo(A)-I ASW/Assault/Spec Msn Prog

6.6.2 (A) – Darlene Mazzone
6.6.2 (B) – James Francisco — Apeo(T)-I Tactical Aircraft Prog

6.6.3 (U) – Tim Brennan
6.6.3 (W) – Fred Jones — Apeo(UW)-I Strike Wpns & UAVAvn Prog

6.6.4 – Mike O'Mealy — Apeo(1.0)-I Prog Mgmt

6.6.5 – John Baranowski — F-35B/C Logistics Integration

6.6E –
Clark Butner — Lead, Sustainment Strategy
Anthony Cintron — Lead, I&I R&R
Teresa Fazio — Lead, Swps

6.6F – Ron Weinberger — DoI, International Program Ofc

6.7T - Bill Matzen — Tech Dir, Industrial & Logistics Maint Planning/Sustainment

6.7.1 – Ann Wood — Design Interface/Maint Planning

6.7.2 – William Pierce — Maint & Supply Integration

6.7.3 – Henry Rambo — Maint Scheduling & Mgmt

6.7.4 – Michael Pensenstadler — Integrated Warfighter Supt Svc

6.7.5 – Robert Brown — Training/Training Supt

6.7.6 – Lorie Nace — Support Equipment

6.7.7 – Bruce Wilhelm — Industrial Business Ops

6.8D – Roy Harris — Tech Dir - Aviation Readiness & Resource Analysis

6.8.1 – James Wojciechowski — Aviation Resources

6.8.2 – Aubrey Dennis — Aviation & Maint Readiness Analysis

6.8.3 – Jim McGilloway — Total Asset Visibility (TAV)

6.8.4 – Joe Joseph — Log & Maint Info Systems & Technology

6.8.5 – Mary McGlinn — Log Product Data

NATEC — CDR Anthony Jaramillo
NAWCAD 6.0 — Mike Breckon
NAWCAD (PAX) — Doug Jahn
NAWCAD (LKE) — Chris Reymann
NAWCWD — Steve Underwood
NAWC TSD — Brad Ehrhardt
FRC - E — John Gatt
FRC - SE — Don Nedresky
FRC - SW — Shawn Delaware

Current as of May 29, 2013

Guidance and NAVAIR Commander's Intent. These initiatives include O&S Cost and O&S Should Cost reduction efforts; the development and implementation of the ILSMS tool and corresponding Logistics Assessment data triage process; and the use of innovative COMFRC-related efforts that include Aviation Rapid Action Teams, Colocated Maintenance and Maintenance Optimization.

"In order for the NAE to meet the O&S cost reduction goals, three areas must be kept in center focus: First, the initiatives must be vetted, easy to implement, and effective when used; next, we must have buy-in from all elements of the NAE stakeholders from the flight line to the Triad; and lastly, the metrics we obtain from these initiatives must be accurate to a level to allow the leadership team to make informed business decisions," according to Rear Adm. Jaynes.

Emerging Sustainment Initiatives
O&S Cost and O&S Should Cost Initiative
The first initiative centers on finding cost efficiencies in depot maintenance, aviation depot level repairables and consumable materials. These cost drivers present the greatest opportunity for savings. The team recently launched best-practices, affordability and readiness strategies, all of which have been replicated across all platform teams. The O&S Cost effort focuses on reducing current readiness sustainment costs, while the O&S Should Cost effort focuses on reducing future readiness O&S costs that might be inherent in weapon system acquisitions.

The O&S Cost and O&S Should Cost initiative performs Root Cause Analysis (RCA) in four areas: Maintenance Practices, Maintenance Planning, Repair Capability and Contract Strategies. Maintenance Practices focuses on reviewing current fleet maintenance practices and identifying areas of opportunity for improving maintenance practices and/or reducing cost per flight hour. Under Maintenance Planning, the focus will be to apply actual failure data to current maintenance plans, investigate opportunities to turn high-cost consumables into repairables, and determine if additional repair capability is warranted. In Repair Capability, current repair capability and capacity at both Maintenance Level II (Intermediate) and Maintenance Level III (Depot) are documented. During the Repair Capability phase, the ARAT members interact with the platform team to better utilize Intermediate-Level repair capability to avoid costs associated with Depot-Level repair of assets. Under Contract Strategies, supply chain management support contracts are reviewed to seek opportunities to optimize cost-wise readiness and broaden the vendor base in an effort to reduce sustainment costs.

"To impact those issues driving readiness gaps and cost, we must continue to influence design for supportability to enable future readiness and attack readiness and cost drivers to enhance current readiness. By standardizing our readiness assessment processes, properly training our analysis teams,

> **"By standardizing our readiness assessment processes, properly training our analysis teams, and holding provider organizations and resource sponsors accountable, we can drive cost down and increase readiness."**
> **—Rear Adm. CJ Jaynes**

and holding provider organizations and resource sponsors accountable, we can drive cost down and increase readiness," Jaynes said.

Platform-Specific Logistics Assessments Utilizing the Integrated Logistics Support Management System (ILSMS)
The second initiative is centered on the implementation of the ILSMS tool in all platform program offices and the execution of the Logistics Assessment as a platform team enters its NAE briefing cycle.

The Logistics Assessment is a data triage process focused on the equipment pillar of the readiness PESTO (people, equipment, supply, training, ordnance) equation. It is designed to provide the T/M/S team with a standardized process for identifying their readiness and cost degraders. The ILSMS tool facilitates data triage as it provides the analyst with advanced analytical capabilities, simulation models and improved access to aggregated data. The primary objectives of the Logistics Assessment are to:

- Institutionalize a repeatable data triage process with a common understanding of readiness and cost degraders.
- Improve root cause analysis of those issues.
- Develop mitigation plans with provider organizations.
- Identify systemic issues across the enterprise.

ILSMS will help facilitate the root-cause and business-case analyses necessary to identify crucial linkage to reducing readiness and cost degraders. The system uses a 10-year historical baseline to identify components that are performing outside of established parameters. This ability will give leadership early indications of potential degraders and allow for mitigation

before they become readiness or cost degraders. ILSMS also provides more than 100 top-level metrics, with the detailed transactional data behind them, to assist in trend analysis. The Logistics Assessment and ILSMS are key enablers in addressing cost and readiness degraders with platform teams, provider organizations and resource sponsors to affect changes to improve readiness and reduce cost.

COMFRC Aviation Rapid Action Teams (ARATs), Colocated Maintenance (CLM) and Maintenance Optimization (MO)

A third initiative involves the use of innovative efforts developed at COMFRC designed to aggressively address repair throughput barriers, process inefficiencies, and readiness and cost degraders. These initiatives include the use of ARATs, CLM and MO.

ARATs are agile teams made up of analysts, engineers and logisticians whose purpose is to provide quick root cause analysis of potential cost and readiness degraders, and then formulate innovative solutions to overcome these barriers. Possible solutions could be to design a new maintenance or supply process, introduce a new tool or piece of equipment, or reassign and train a repair technician to perform a new or additional task. The ARAT team will be an important option available to the T/M/S team as its members work their cost and readiness degraders discovered during the Logistics Assessment.

The maintenance and supply business efficiencies coming from the CLM and MO efforts hold the promise of real cost savings. Both efforts present a graduated approach to integrating Level II (intermediate) and Level III (depot) main-tenance activities and garnering cost efficiencies from that integration. Using FRC Southeast (Jacksonville, Fla.) as the testbed, COMFRC has mapped out processes and business rules, and conducted a prototype demonstration of the potential benefits of the Integrated Industrial Work Center. This prototype identified 36 components that could be repaired under this integrated maintenance approach, resulting in a reduction of $320,000 in a Component Unit Price (CUP) for FY 2012.

As Rear Adm. John King, Naval Supply Systems Command Weapon Systems Support, said, "We are living in exciting times. While the pressures of smaller budgets are challenging, it is also a time where we can mine data across the NAE and leverage this information to make cost-saving decisions to the benefit of both the warfighter and the taxpayer."

Summary
For the DoD weapon system acquisition process and the subsequent fielding and sustainment phases, the NAE's renewed focus on effective cost management and program affordability has created a whole new opportunity to discover and implement innovative solutions to the readiness and cost degraders that have plagued T/M/S teams for a long time. The processes outlined in this article reflect the disciplined, multifaceted approach the NAE will utilize to identify and execute life-cycle cost reduction while maintaining optimum aircraft readiness.

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